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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,165	11/06/2001	Stephen Sherman	60027.0045US01/BS01195	6370

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EXAMINER	
SING, SIMON P	

ART UNIT	PAPER NUMBER
2645	4

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/992,165	SHERMAN ET AL.	
	Examiner	Art Unit	
	Simon Sing	2645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-18, 20 and 21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-18, 20 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura et al. US 6,553,221.

Nakamura discloses a method for notifying a mobile station 20a of incoming calls while the mobile station 20a is not reachable due to power-off or out-of-range (figure 1; column 3, lines 42-51). Nakamura teaches:

receiving a call from a calling party directed to the mobile station 20a (column 3, lines 15-17);

obtaining caller identification information on the calling party (column 3, lines 17-21);

determining whether the mobile station 20a is reachable (registered) (column 3, lines 17-18, 42-51; column 5, lines 37-40);

if the mobile station 20a is not reachable, stored the caller identification (column 3, lines 17-21), and checking the registration status of the mobile station 20a at a regular frequency until it becomes available (figure 7, step 11; column 5, lines 42-51);

if the mobile station 20a becomes reachable, forwarding the caller identification, obtained during the operative unavailability, to the mobile station 20a for storage in a memory (missed call log) for display (column 3, lines 22-34).

2. Claims 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Barvesten US 6,311,057.

2.1 Regarding claim 14, Barvesten discloses a method of forwarding caller IDs, obtained during the operative unavailability of a mobile station 10, to a cellular telephone in figures 1-3. Barvesten teaches:

receiving a call from a calling party directed to the mobile station 10 (column 5, lines 20-23, 59-62);

obtaining caller identification information on the calling party from a calling name database (column 5, lines 27-43; column 6, lines 28-34);

querying a home location register (HLR) for information indicating that the mobile station 10 is registered to receive calls (column 4, lines 1-20; column 5, lines 20-30, 63-66);

if the mobile station 10 is not reachable (registered), stored the caller identification in a caller identification queue (column 5, lines 38-43, 50-54; column 6, lines 5-10, 58-63; column 7, lines 5-10);

if the mobile station becomes reachable (registered), forwarding the caller identification, obtained during the operative unavailability, to the mobile station 10 for storage in a display list (missed call log) for display (column 5, lines 50-54; column 6, lines 51-63).

2.2 Regarding claim 15, Barvesten teaches determining whether the mobile station 10 is switched on and within a service area (column 1, lines 36-42; column 6, lines 51-53).

2.3 Regarding claim 16, Barvesten teaches determining from a home location register (HLR) whether the mobile station 10 has become reregistered to receive call (column 4, lines 1-20; column 5, lines 45-47; column 6, lines 51-53).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3-6, 9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barvesten US 6,311,057 in view of Nakamura et al. US 6,553,221.

3.1 Regarding claim 1, Barvesten discloses a method of forwarding caller IDs, obtained during the operative unavailability of a mobile station 10, to a cellular telephone in figures 1-3. Barvesten teaches:

receiving a call from a calling party directed to the mobile station 10 (column 5, lines 20-23, 59-62);

obtaining caller identification information on the calling party (column 5, lines 30-32; column 6, lines 5-10);

determining whether the mobile station 10 is reachable (registered) (column 4, lines 1-20; column 5, lines 23-30, 63-66);

if the mobile station 10 is not reachable, stored the caller identification (column 5, lines 38-43; column 6, lines 5-10), and detecting the registration status of the mobile station 10 whether it becomes available (column 6, lines 51-53);

if the mobile station 10 becomes reachable, forwarding the caller identification, obtained during the operative unavailability, to the mobile station 10 for storage in a display list (missed call log) for display (column 5, lines 50-54; column 6, lines 51-63; column 7, lines 5-10).

Barvesten teaches detecting the registration status (availability) of mobile station 10, but fails to teach checking the status periodically.

However, Nakamura discloses an incoming call notification apparatus in figure 1. Nakamura teaches receiving an incoming call directed to a mobile station 20a; determining whether the mobile station 20a is operable; storing caller information; checking the availability status periodically; and if the mobile station 20a becomes available, forwarding the stored caller information to mobile station 20a for storage in a memory (missed call log) and display (Abstract; column 2, lines 56-66; column 3, lines 15-51; column 5, lines 37-40; figure 7, step 11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Barvesten's reference with the teaching of Nakamura, so that a MSC 16 would have periodically checking the status of mobile station 10 to see whether it had become reachable (registered), because such modification would clarified Barvesten's teaching of how status detection was made.

3.2 Regarding claim 3, Barvesten teaches displaying a question regarding whether a return call is desired on the mobile station 10 (column 6, lines 62-63).

3.3 Regarding claim 4, Barvesten teaches displaying callers' information of missed calls on the mobile station 10 (column 6, lines 58-63).

3.4 Regarding claim 5, Barvesten teaches that caller's ID includes telephone number and name (column 5, lines 33-43, 50-54; column 6, lines 28-34, 58-63).

3.5 Regarding claim 6, Barvesten teaches that a caller's information includes data an time (column 6, lines 42-49).

3.6 Regarding claim 9, Barvesten teaches obtaining a caller's name from a calling name database (column 5, lines 33-43; column 6, lines 28-34).

3.7 Regarding claim 12, Barvesten teaches determining whether the mobile station 10 is re-reregistered to receive call (column 5, lines 45-47; column 6, lines 51-53).

3.8 Regarding claim 13, Barvesten teaches querying a home location register (HLR) for information indicating that the mobile station 10 is registered to receive calls (column 4, lines 1-20).

4. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barvesten US 6,311,057 in view of Nakamura et al. US 6,553,221 and further in view of Farris US 5,805,997.

4.1 Regarding claim 7, Barvesten's reference, modified by Nakamura, teaches determining whether the mobile station 10 is reachable, but fails to teach transmitting IS-41 location request from a wireless switch to a home location register (HLR).

However, Farris discloses using a cellular digital packet data in a cellular network. Farris teaches that IS-41 protocol is used for communications between a HLR and a mobile switching center, or MSC (column 7, lines 54-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Barvesten's reference with the teaching of Farris, so that a IS-41 location request would have been transmitted from a MSC to a HLR, because IS-41 was a standard protocol used in North America cellular system for pre-call validation, and such modification would have clarified the Barvesten's teaching and would have made the modified system usable in America.

4.2 Regarding claim 8, Barvesten teaches determining whether the mobile station 10 is switched on and within a service area (column 1, lines 36-42; column 6, lines 51-53).

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barvesten US 6,311,057 in view of Nakamura et al. US 6,553,221 and further in view of Foti US 5,974,309.

Barvesten's reference, modified by Nakamura, teaches obtaining caller identification information from a wire-line telephone and storing the caller identification information in a missed call log, but fails to teach obtaining caller identification information from a home location register (HLR) when a caller is a cellular subscriber.

However, Foti teaches using IS-41 signaling to query a HLR for calling line identification of a mobile station and sending the calling line identification to a called mobile station (column 4, lines 31-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Barvesten's reference with the teaching of Foti, so that the caller identification information would have been obtained from a HLR, and a IS-41 protocol would have been used for sending call identification information, because when a caller was a mobile subscriber, because such a modification would have enabled the modified system to obtain callers' ID from cellular networks.

6. Claims 17, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barvesten US 6,311,057 in view of Skog US 5,930,701.

6.1 Regarding claim 17, Barvesten discloses a system for forwarding caller IDs, obtained during the operative unavailability of a mobile station 10, to a cellular telephone in figures 1. The system comprising:

a wireless witch (MSC 16) operative

to receive a call from a calling party directed to the mobile station 10 (column 5, lines 20-23, 59-62);

to obtain caller identification information on the calling party from a calling name database (column 5, lines 27-43; column 6, lines 28-34);

to send the caller ID to a caller identification queue for storage, if the mobile station 10 is not reachable (registered), (column 5, lines 38-43, 50-54; column 6, lines 5-10, 58-63; column 7, lines 5-10);

to forward the caller identification, obtained during the operative unavailability from the queue (column 7, lines 5-10) to the mobile station 10, if the mobile station becomes reachable (registered) (column 5, lines 50-54; column 6, lines 51-63);

a home location register (HLR) operative

determine whether the mobile station 10 is registered to receive calls (column 4, lines 1-20; column 5, lines 20-30, 63-66); and

a the mobile station 10 operative

to receive the stored caller IDs (column 5, lines 45-50; column 6, lines 55-58);

to store the caller IDs in a display list (missed call log) (column 5, lines 50-54; column 6, lines 58-62);

to display a indication of missed calls (column 6, lines 62-63); and

to display the caller IDs (column 5, lines 50-54; column 6, lines 51-63).

Barvesten teaches that the obtaining caller IDs, sending the caller IDs to a queue for storage and forwarding the caller IDs to mobile station 10 are performed by mobile switch center 16, not by HLR 18.

However, Skog discloses a system for providing caller ID within mobile communications network when a terminating mobile terminal is unreachable (not registered) (Abstract; column 2, lines 15-19). Skog teaches a home location register (HLR) 50 operative to obtain caller identification information on the calling party (column 6, lines 57-67; column 7, lines 1-4); to determine whether the terminating mobile terminal is reachable (registered) to receive calls (column 6, lines 29-67; column 7, lines 1-4); to send the caller identification information to a database for storage if the terminating mobile terminal is not reachable (column 6, lines 57-67; column 7, lines 1-4); and to forward the stored caller identification to the terminating mobile terminal if the terminating mobile terminal becomes reachable (column 7, lines 48-67; column 8, lines 1-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Barvesten's reference with the teaching of Skog, so that the obtaining caller IDs, sending the caller IDs to a queue for storage and forwarding the caller IDs to mobile station 10 would have been performed by a HLR, because a MSC and HLR were inseparable parts of a wireless network, and for which one to perform certain functions were a design choice.

6.2 Regarding claim 20, Barvesten teaches caller IDs includes telephone number and name (column 6, lines 58-63).

6.3 Regarding claim 21, Barvesten teaches caller IDs further includes data and time (column 6, lines 42-49).

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barvesten US 6,311,057 in view of Skog US 5,930,701 and further in view of Farris US 5,805,997.

Barvesten's reference, modified by Skog, teaches determining whether the mobile station 10 is reachable, but fails to teach transmitting IS-41 location request from a wireless switch to a home location register (HLR).

However, Farris discloses using a cellular digital packet data in a cellular network. Farris teaches that IS-41 protocol is used for communications between a HLR and a mobile switching center, or MSC (column 7, lines 54-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Barvesten's reference with the teaching of Farris, so that a IS-41 location request would have been transmitted from a MSC to a HLR, because IS-41 was a standard protocol used in North America cellular system for pre-call validation, and such modification would have clarified the Barvesten's teaching and would have made the modified system usable in America.

Response to Arguments

8. Applicant's arguments with respect to claims 1, 3-18, 20 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is (703) 305-3221. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

S.S.

06/08/2004

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